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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,030	08/09/2006	Paul Schalk	DC10028 PCT1	4159

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EXAMINER
LOPEZ ESQUERRA, ANDRES

ART UNIT	PAPER NUMBER
2818	

NOTIFICATION DATE	DELIVERY MODE
12/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

Office Action Summary	Application No.	Applicant(s)	
	10/589,030	SCHALK ET AL.	
	Examiner	Art Unit	
	Andrés López-Esquerra	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 0207*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 November 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Acknowledgement is made of Amendments filled November 20 2007.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duggal et al. US 2002/0190661 (Druggal).

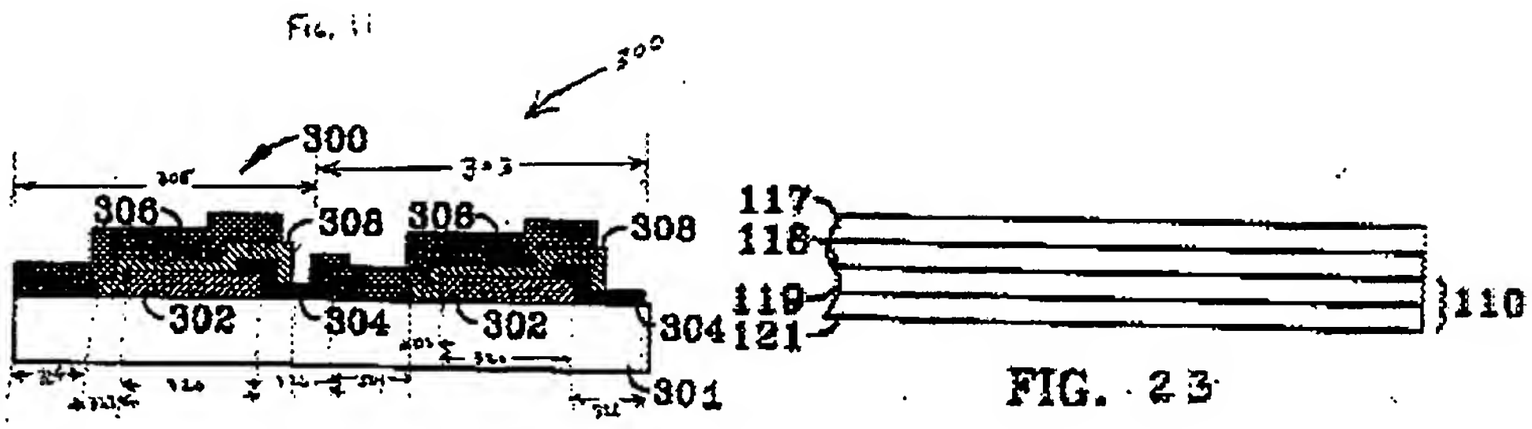

FIG. 23

6. As for claim 1, Duggal discloses (Pages 5 – 6 [0090], Page 10 [0134] – [0136]) and shows in Fig. 11 and 23 an OLED comprising:

a. a substrate (301) having a first opposing surface and a second opposing surface;

b. a first electrode layer (302) overlying the first opposing surface;

c. a light-emitting element (308) overlying the first electrode layer, the light-emitting element comprising:

i. a hole-transport layer(118), and;

ii. an emissive/electron-transport layer (119);

(1) wherein the hole-transport layer and the emissive/electron-transport layer lie directly on one another, and;

d. a second electrode layer (306) overlying the light-emitting element (308).

7. Duggal fails to teach the hole-transport layer comprising a cured polysiloxane.

8. Duggal (fig. 22) discloses (Page 10 [0134] – [0135]) the use of polysilanes (applicant's polysiloxane) as the hole transport layer, furthermore it discloses different possible variation of the same in a second embodiment.

9. Duggal (fig. 22) is evidence that ordinary workers in the art would find a reason, suggestion or motivation to use polysilanes as the hole transport layer.

10. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Duggal by use polysilanes as the hole transport layer in any of the disclose variation for such advantages as providing an OLED exhibit a sharp photoluminescence with a high quantum efficiency in the ultraviolet region (Page 10 [0134]).

11. As to the limitation of "prepared by applying an organosilicon composition to form a film and exposing the film to moisture, wherein the organosilicon composition comprises (A) at least one silane having the formula R1 SiX3 and (B) an organic solvent, wherein each R1 is independently selected from -Y-Cz, -(CH2)m-CnF2n+I, and -(CH2)m-C6F5, wherein Cz is N-carbazolyl, Y is a divalent organic group, m is an integer from 2 to 10, n is an integer from 1 to 3, and X is a hydrolysable group" is considered as a product by process limitation. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even thought the prior product was made by a different process." In re Thorpe, 777F, 2d 659, 698, 227 USPQ 964, 966 (Fed. Cir. 1985); see also MPEP 2113.

12. As for claims 2 – 8, the recited limitations of these claims are considered as product by process limitations. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the

product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even thought the prior product was made by a different process." In re Thorpe, 777F, 2d 659, 698, 227 USPQ 964, 966 (Fed. Cir. 1985); see also MPEP 2113.

13. Examiner would like to point out that the above limitations that are Product-by-Process are so because they go to the composition of the organosilicon composition which is use in the process of creating the polysiloxane layer, neither the claims nor the specifications render the composition of the actual composition of the hole transport layer, therefore since the claims only describe the process and not the structure of the final layer that is present in the invention they are consider Product-by-Process.

14. As for claim 9, Duggal disclose (Page 11 [0147])) that the OLED comprises an emissive/electron-transport layer (119) which composition includes a Photoluminescent layer made of an organic dye.

15. As for claim 10, Duggal further discloses (Page 10 [0136]) the OLED comprising a hole-injection layer (117) and an electron injection layer (121).

Response to Arguments

16. Applicant's arguments filed November 20, 2007 have been fully considered but they are not persuasive.

17. As per applicant's argument (Page 5, line 11 – Page 6, line 7):

> "Claims 1-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Duggall ct al., US 2002/0190661, for the reasons of record. In part, the Examiner states..."

18. examiner respectfully disagrees.

19. Examiner would like to point out that the argument that changing polysiloxane for polysilanes it is known in the art of semiconductor manufacturing as early as April 18, 1989. Onishi et al., US 4,822,716, provided as evidence, discloses (Col. 4, lines 40 - 44) that materials that consist of polysilanes or polysiloxanes can be used in the semiconductor manufacturing process and therefore obvious to interchange them in the process. Furthermore, the part of cured, examiner would like to point out that it is know in the art to cure a polymer further the same limitation can be understood to be a product by process since cured implies a process to prepare the material.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. WO 2005/019307, US 4,769,292, US 4,933,053, US 2003/0219924, and US 5,869,843.

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrés López-Esquerra whose telephone number is (571) 272-9753. The examiner can normally be reached on M - Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven H. Loke can be reached on (571) 272 - 1657. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrés López-Esquerra
Examiner
Art Unit 2818

ALE

DAVID VU
PRIMARY EXAMINER